

## Target mRNA 1

Linker 1

A decorative border consisting of a vertical zigzag line on the left side and a solid black rectangle with a cross-hatched or textured interior on the right side.

## Anchor 1

## Detection 1

Eig 1

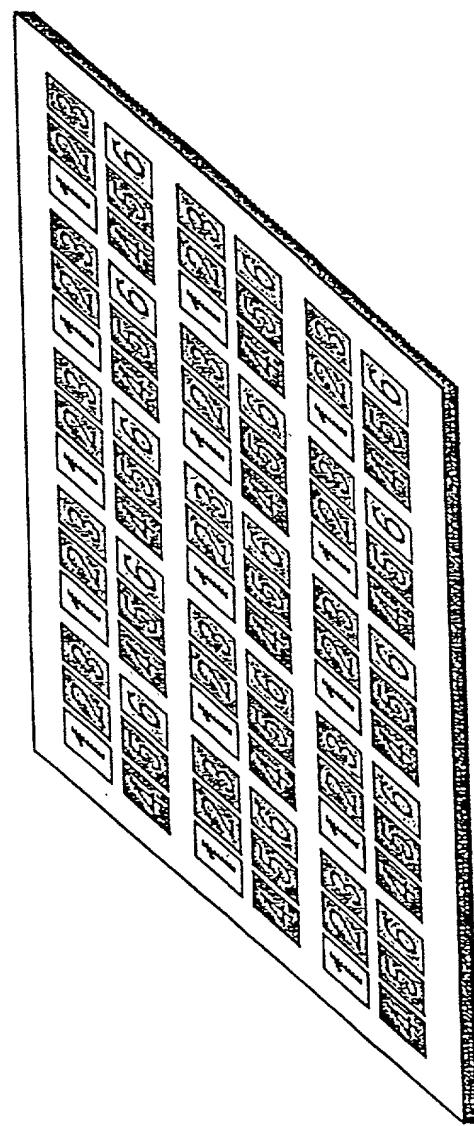


Fig 2

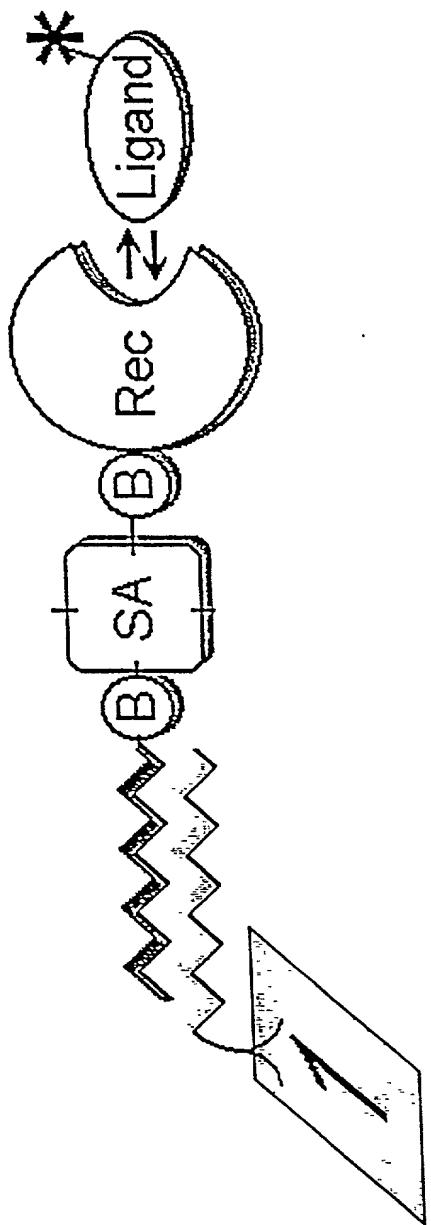


Fig 3

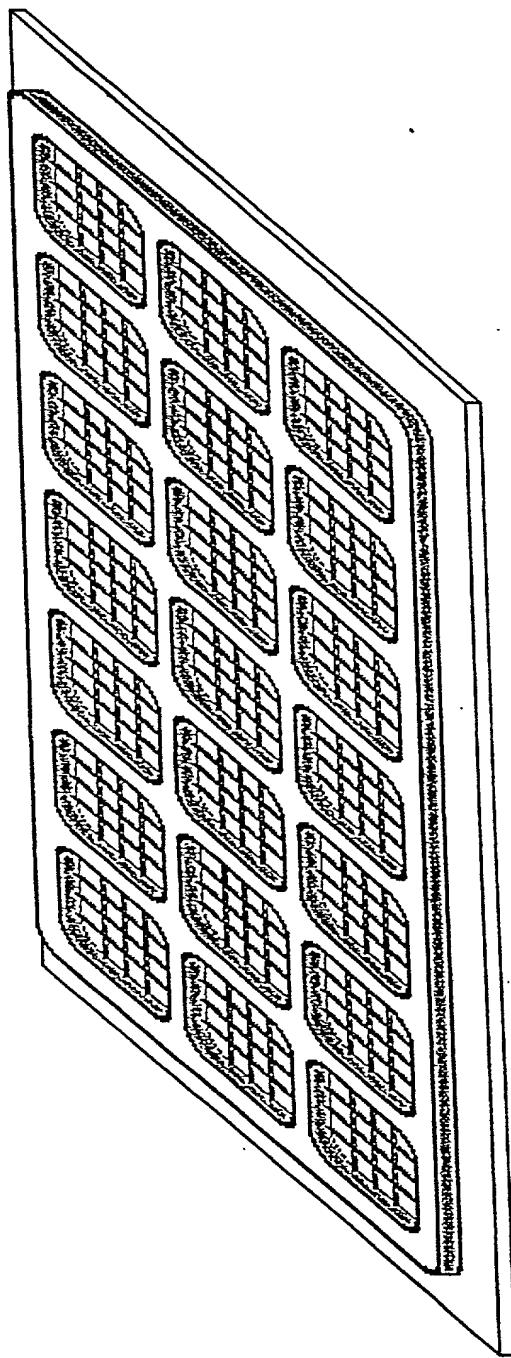


Fig 4

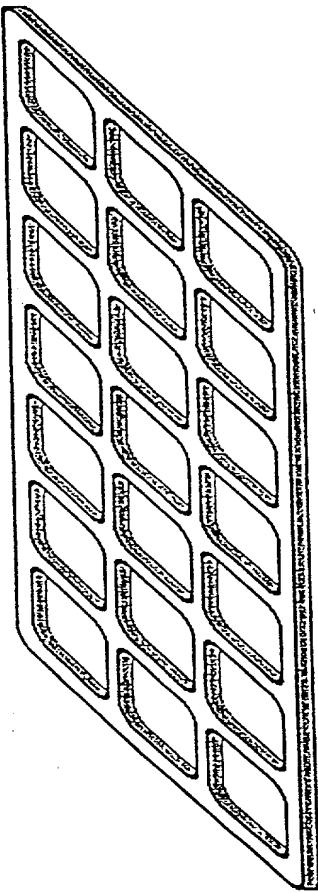


Fig 5a

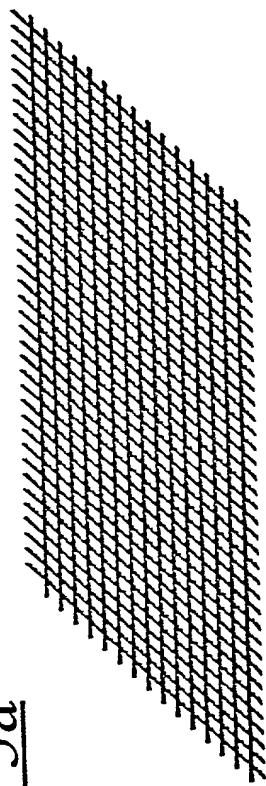


Fig 5b

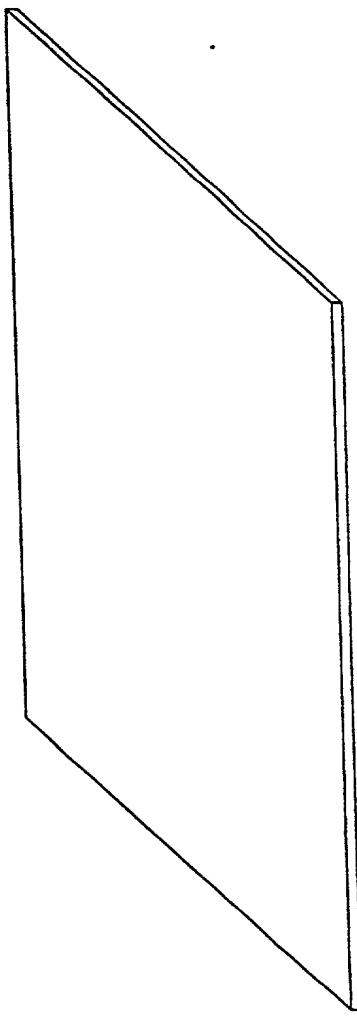


Fig 5c

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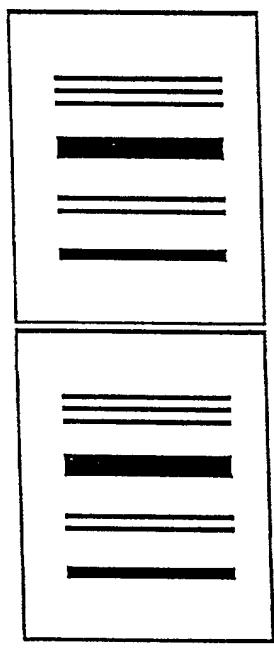


Fig 6

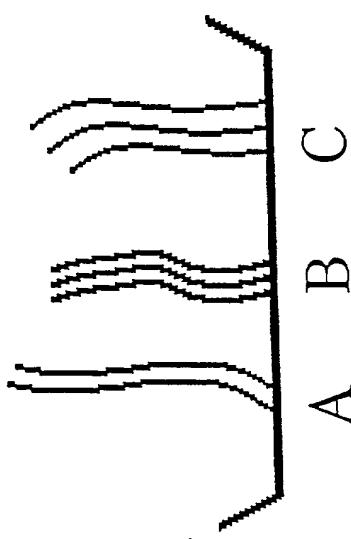


Fig 7

Protection Fragments

at Excess

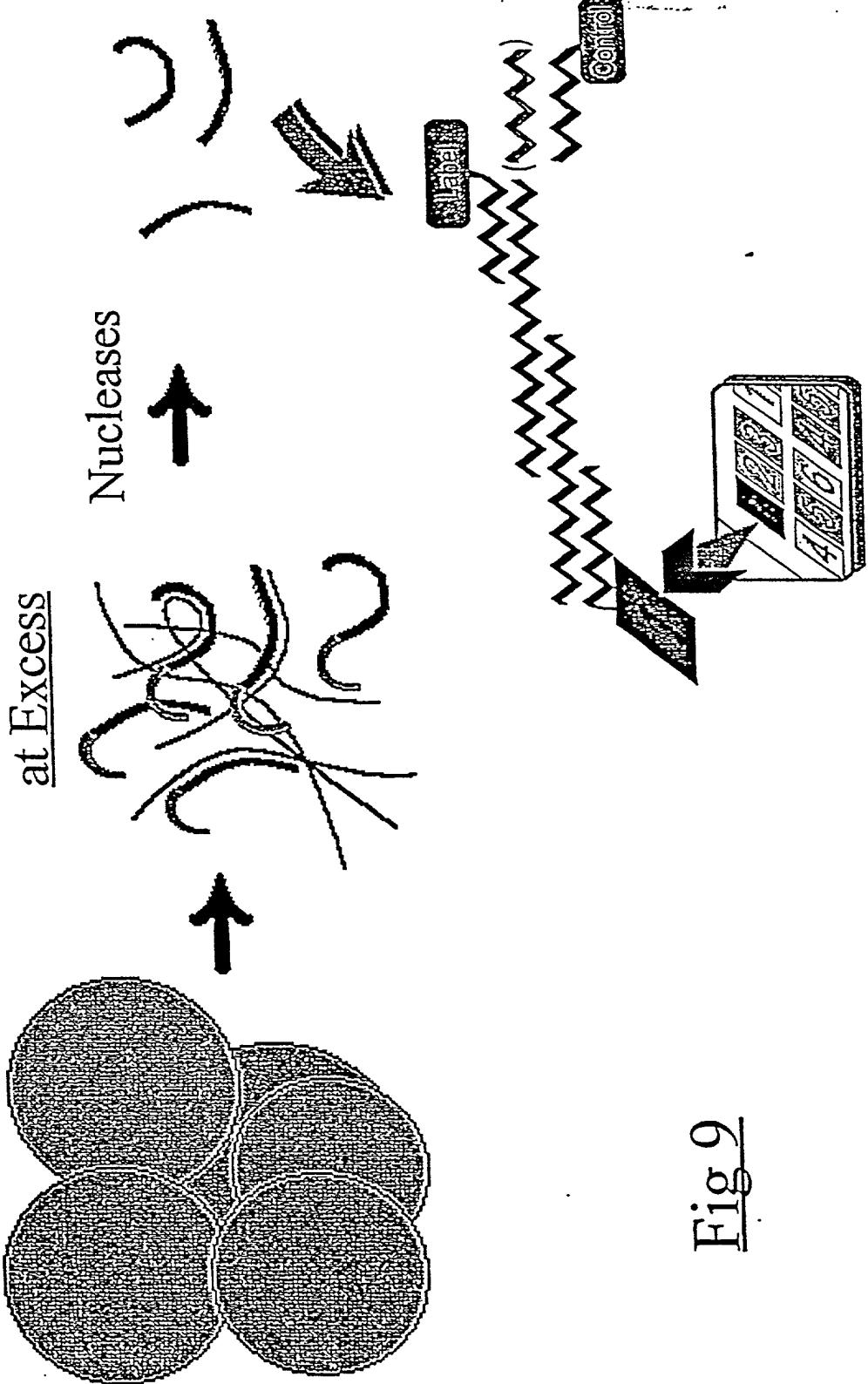
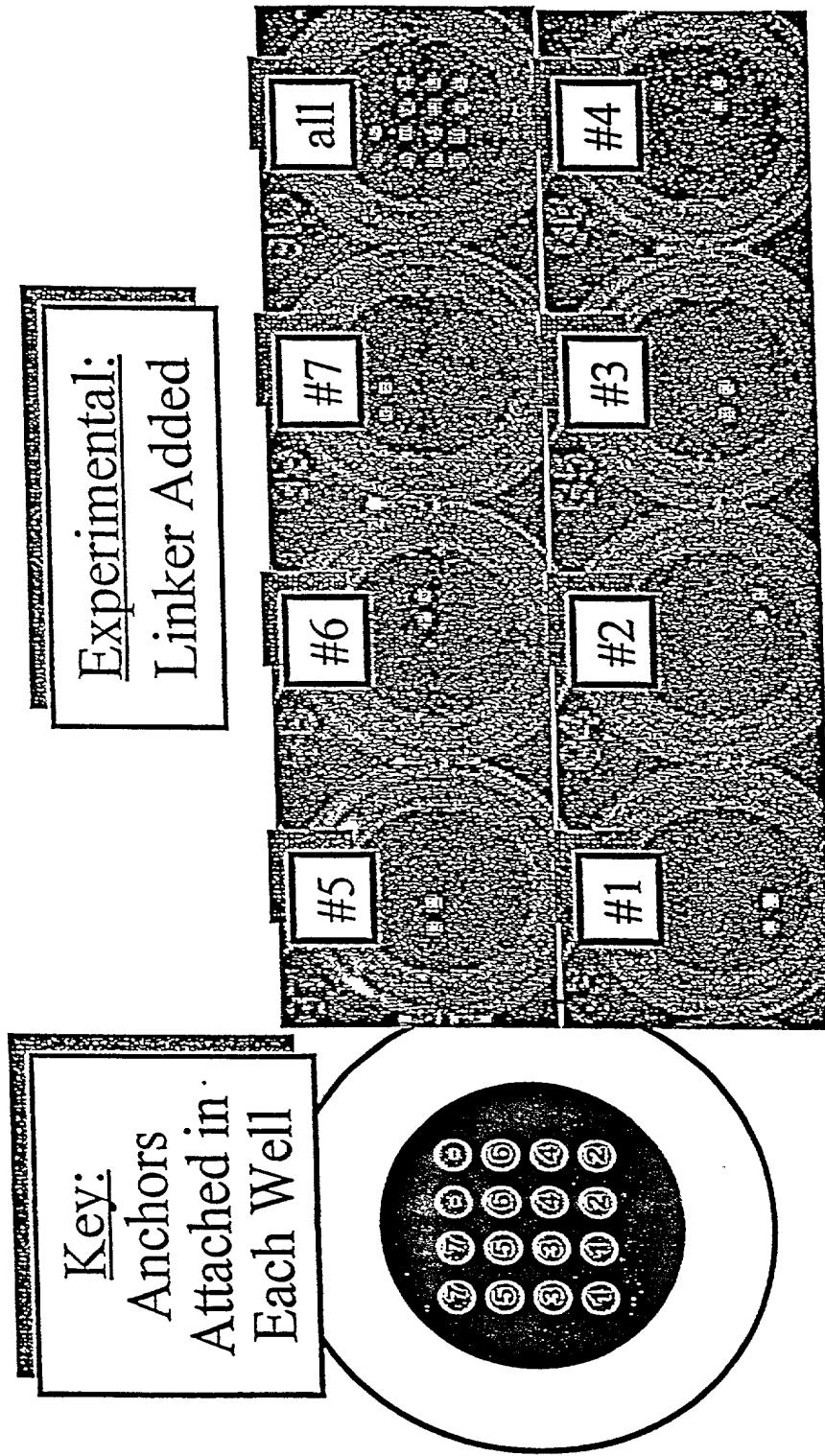


Fig 9

Fig 10



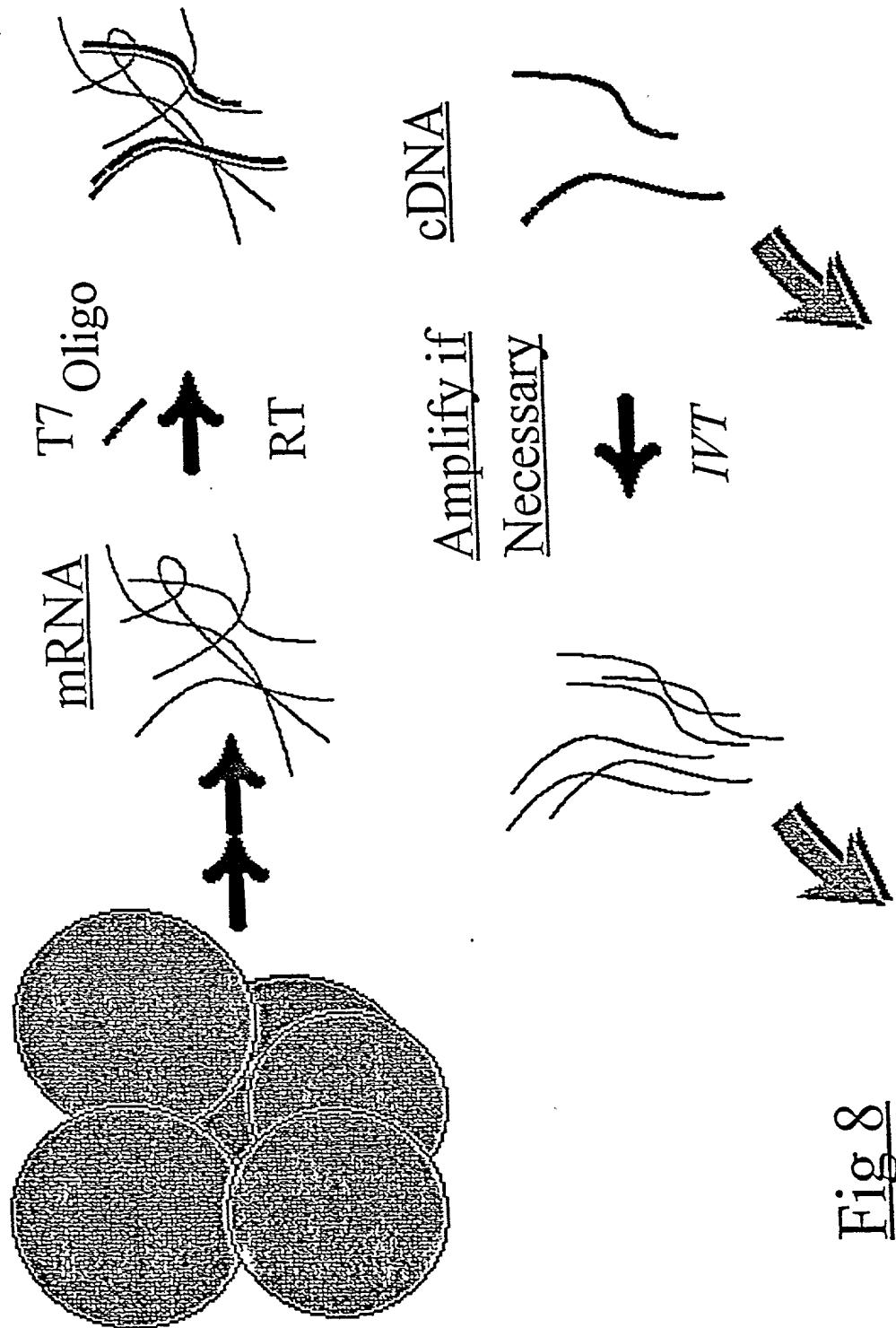


Fig 8

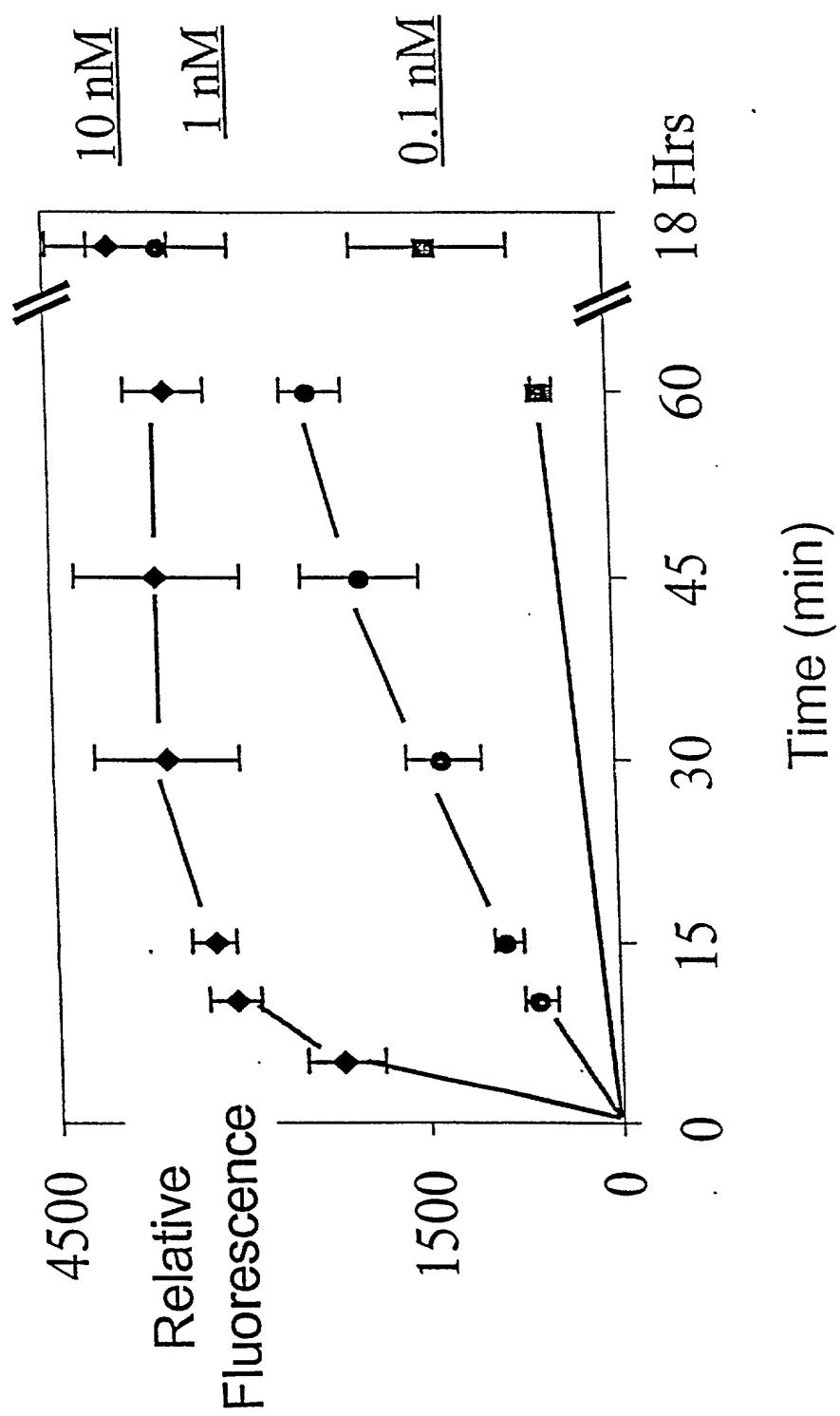


Fig 11

[Target]: 0.0      1.1      3.3      10.0 pM

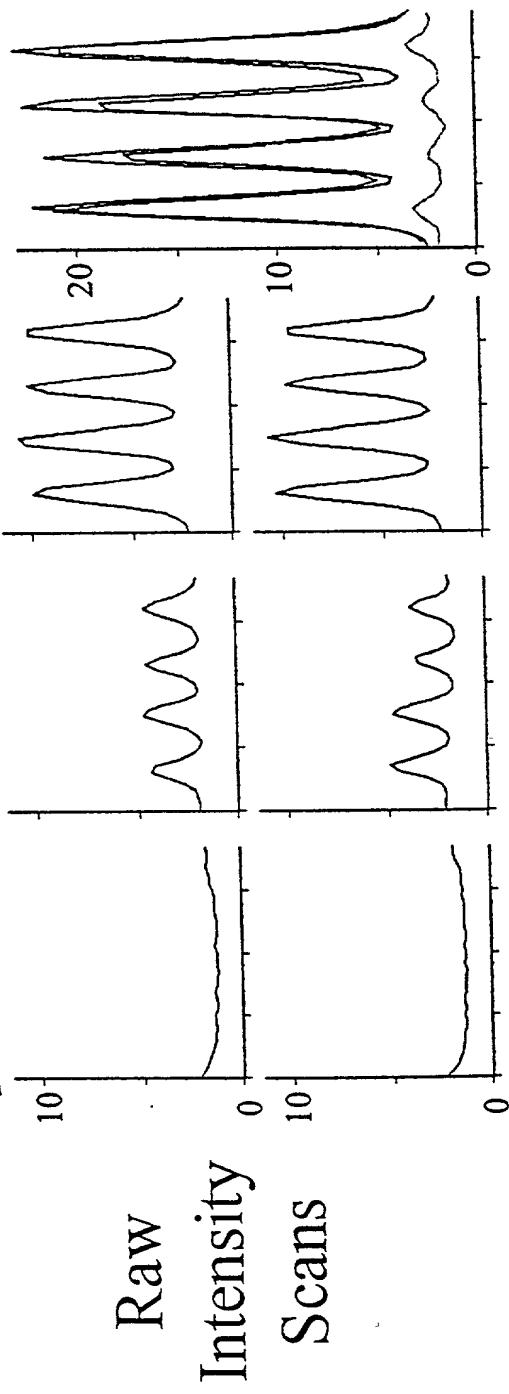
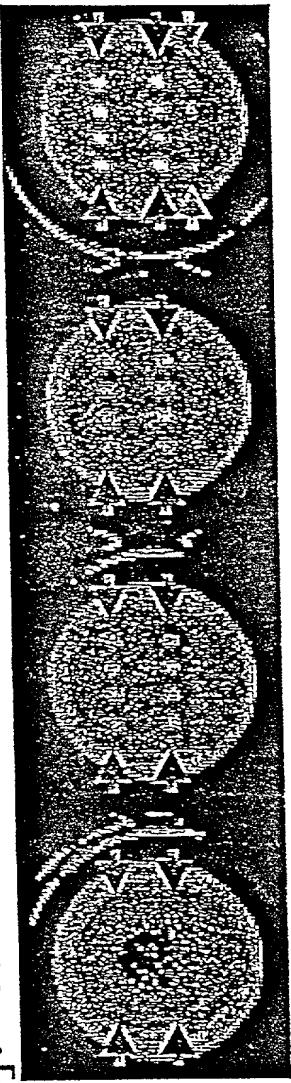


Fig 12

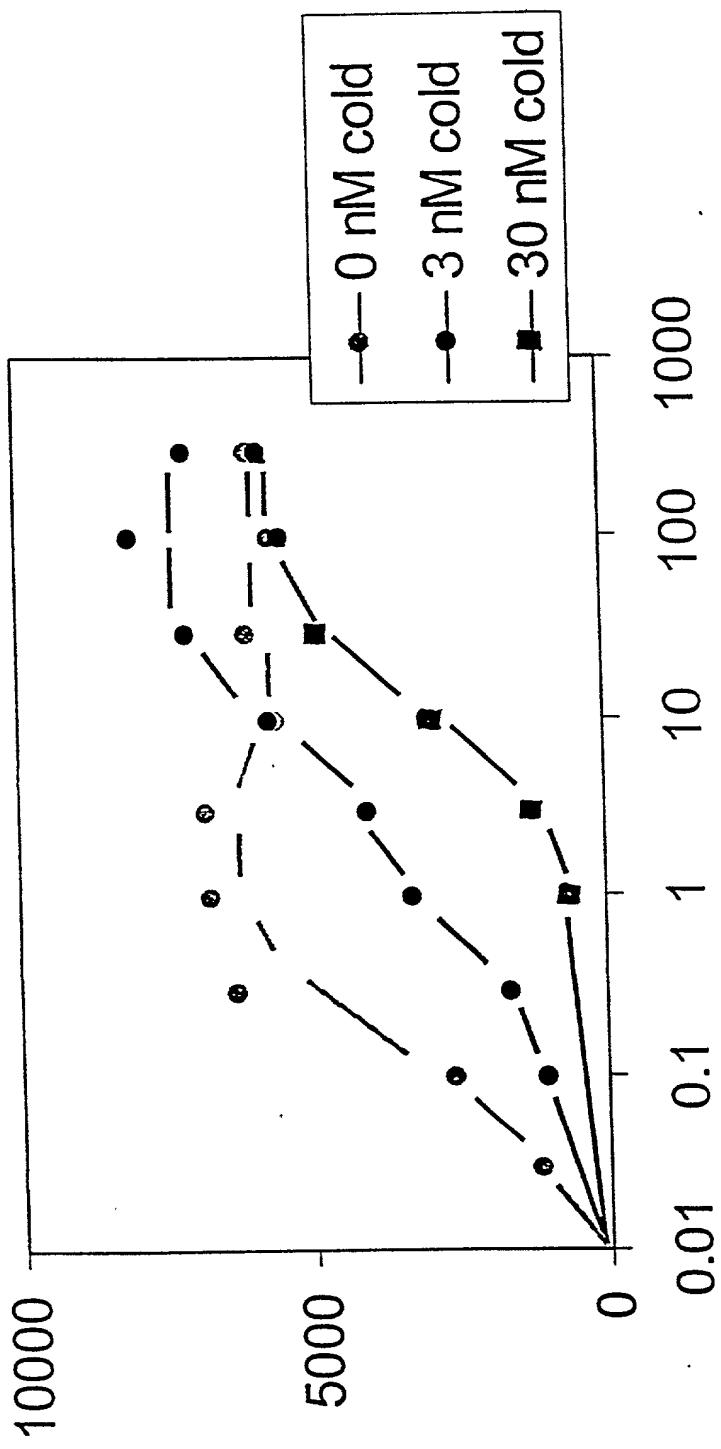


Fig 13

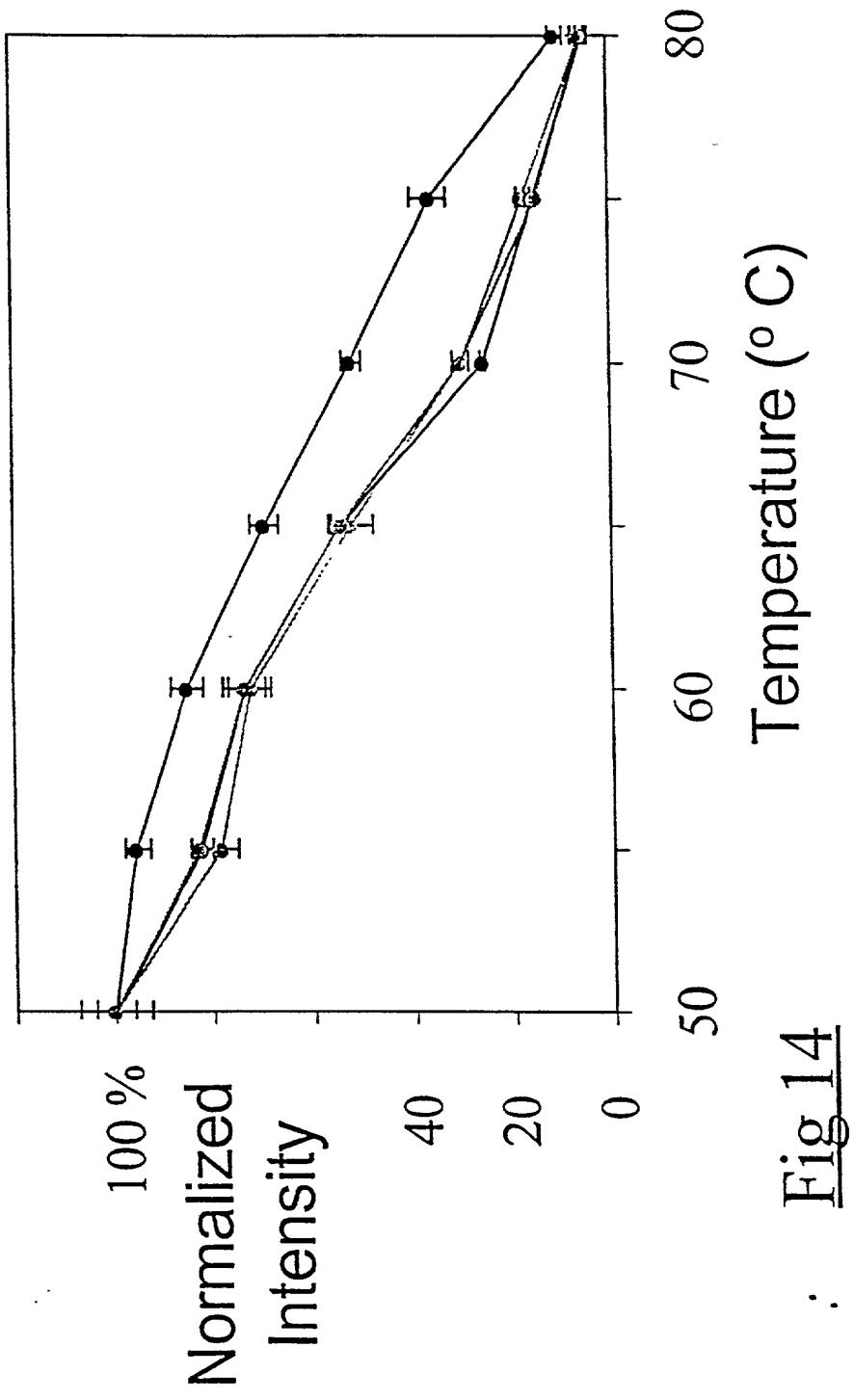


Fig 14

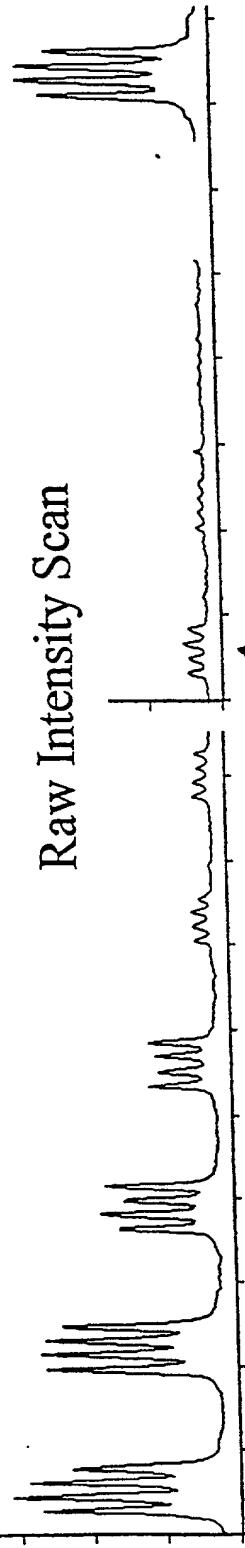
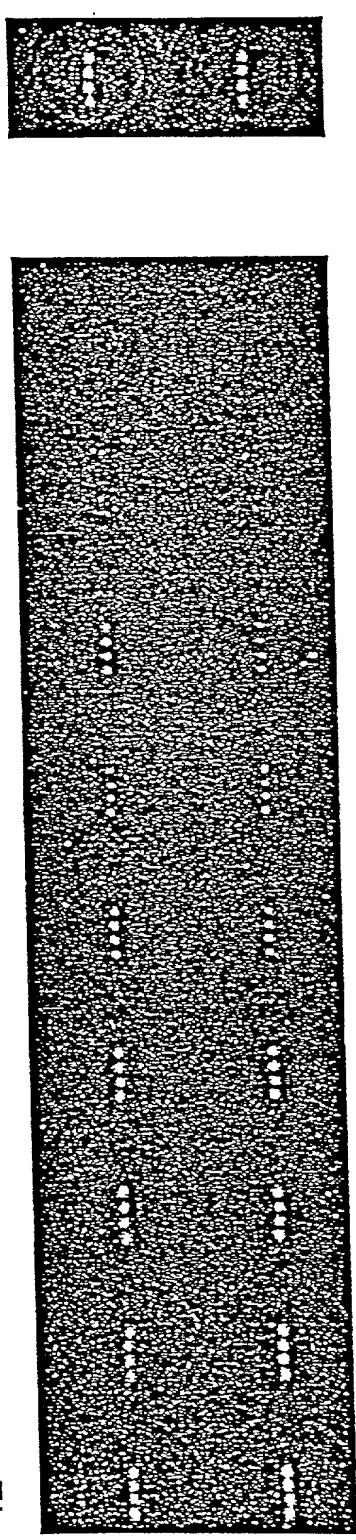
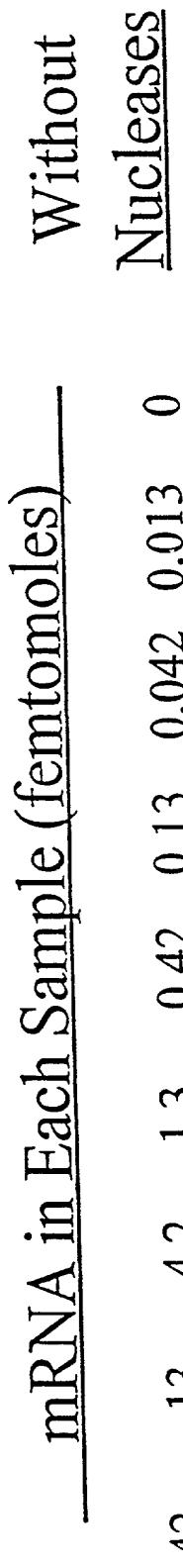
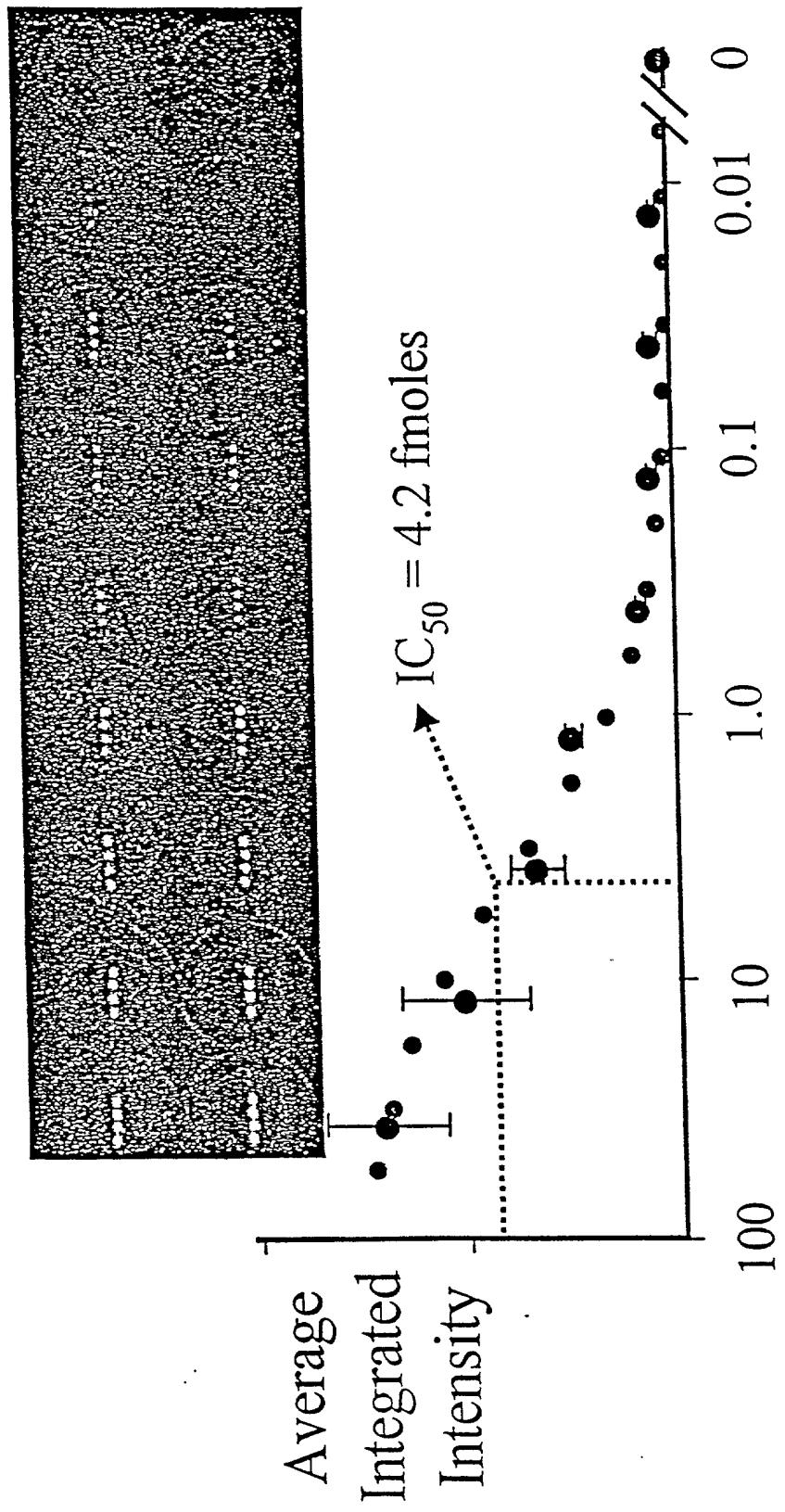
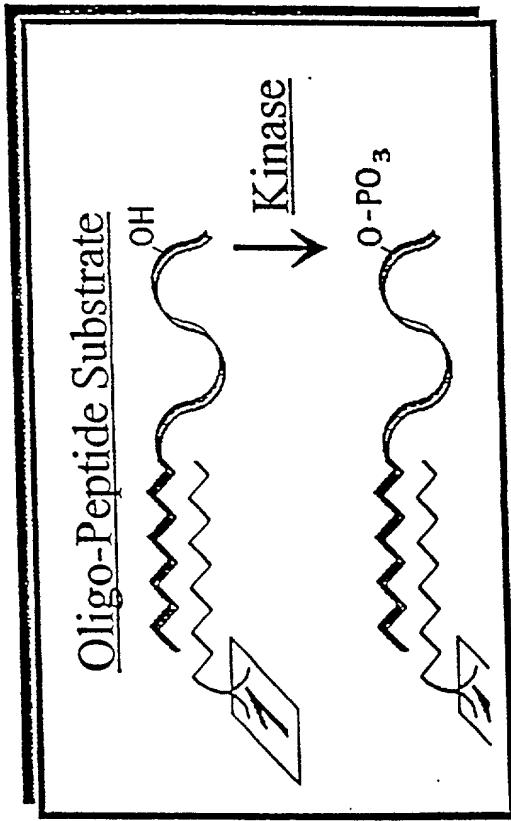


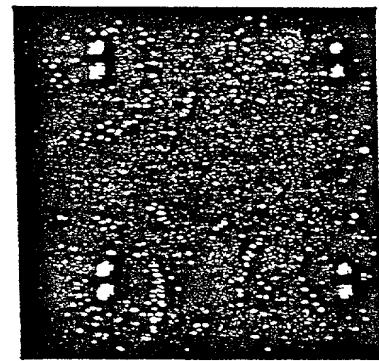
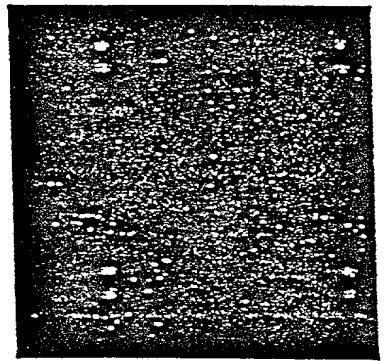
Fig 15  $\rightarrow = 25 \times 10^6$  molecules

**Fig 16**  
mRNA per sample (femtomoles)





Concentration of Oligo-Peptide  
3 nM  
10 nM



Phosphorylated  
Chimera  
Partially\*  
De-Phosphorylated

Fig 17

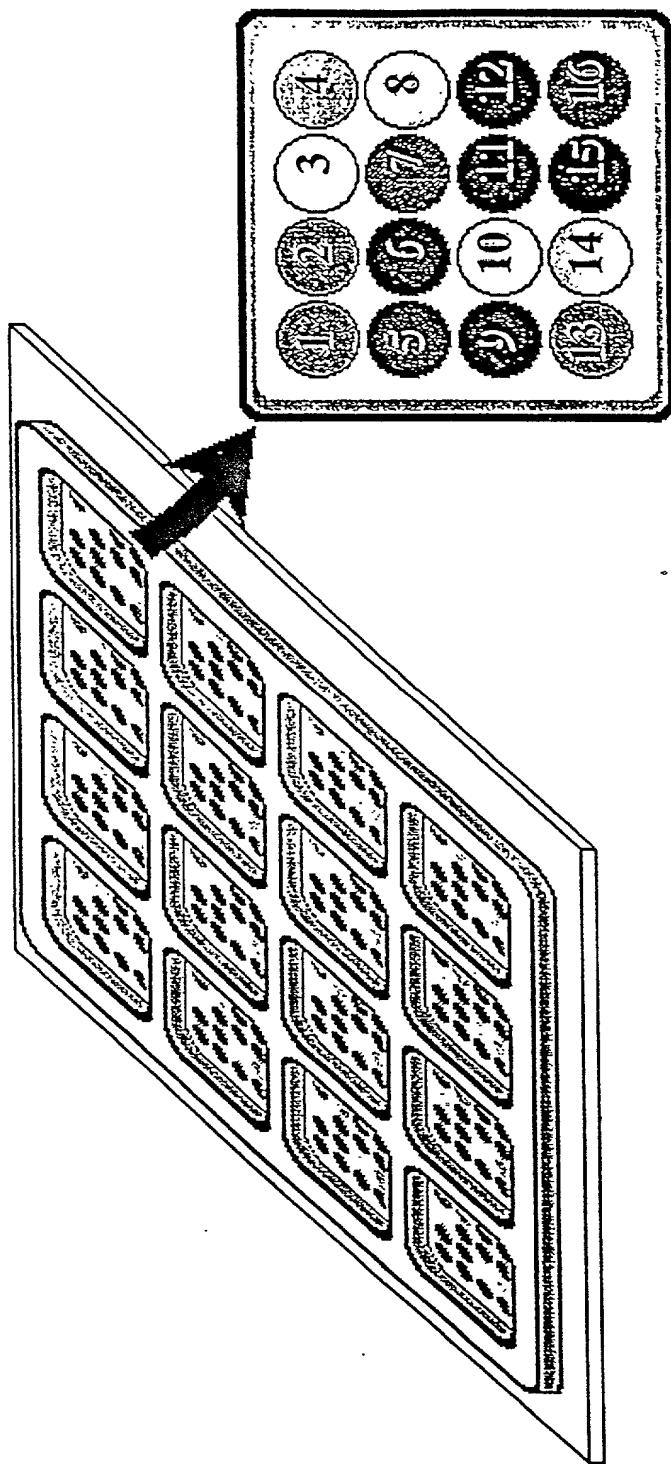


Fig 18

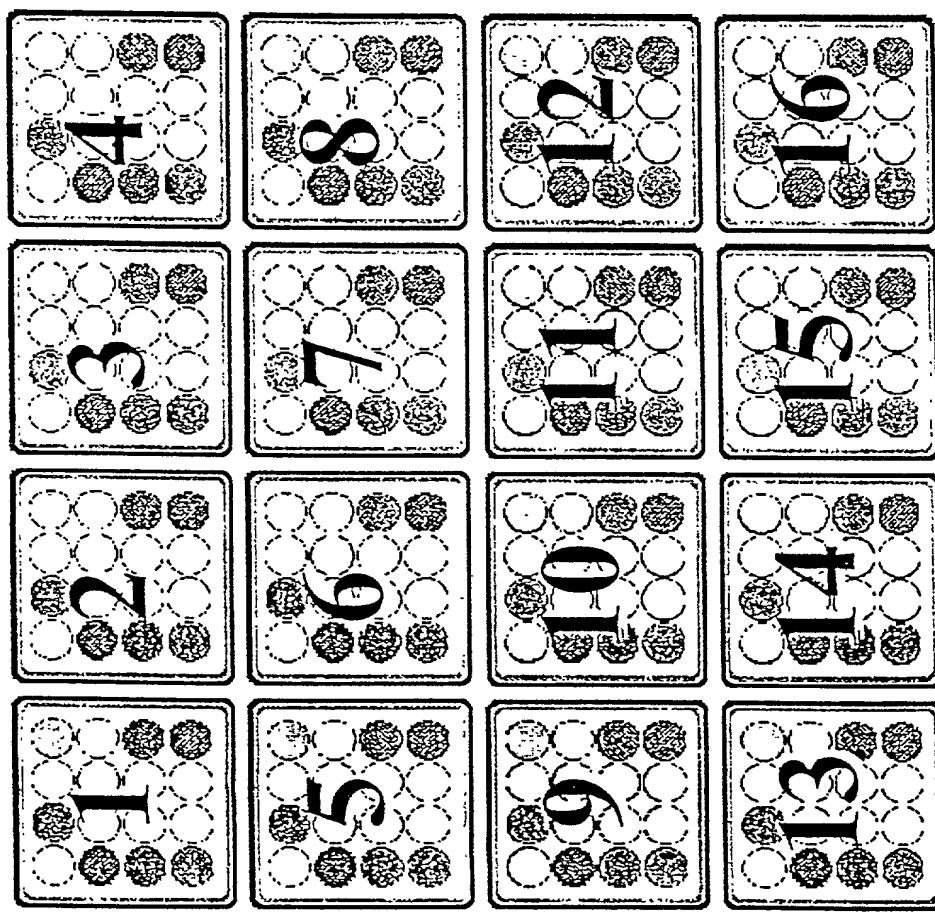


Fig 19

Fig 20b

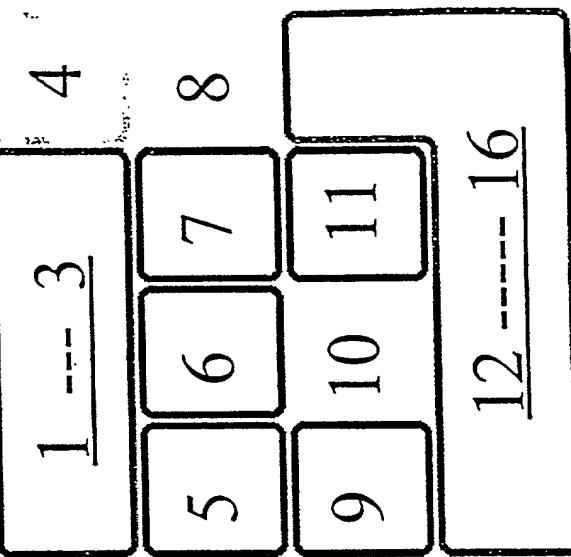
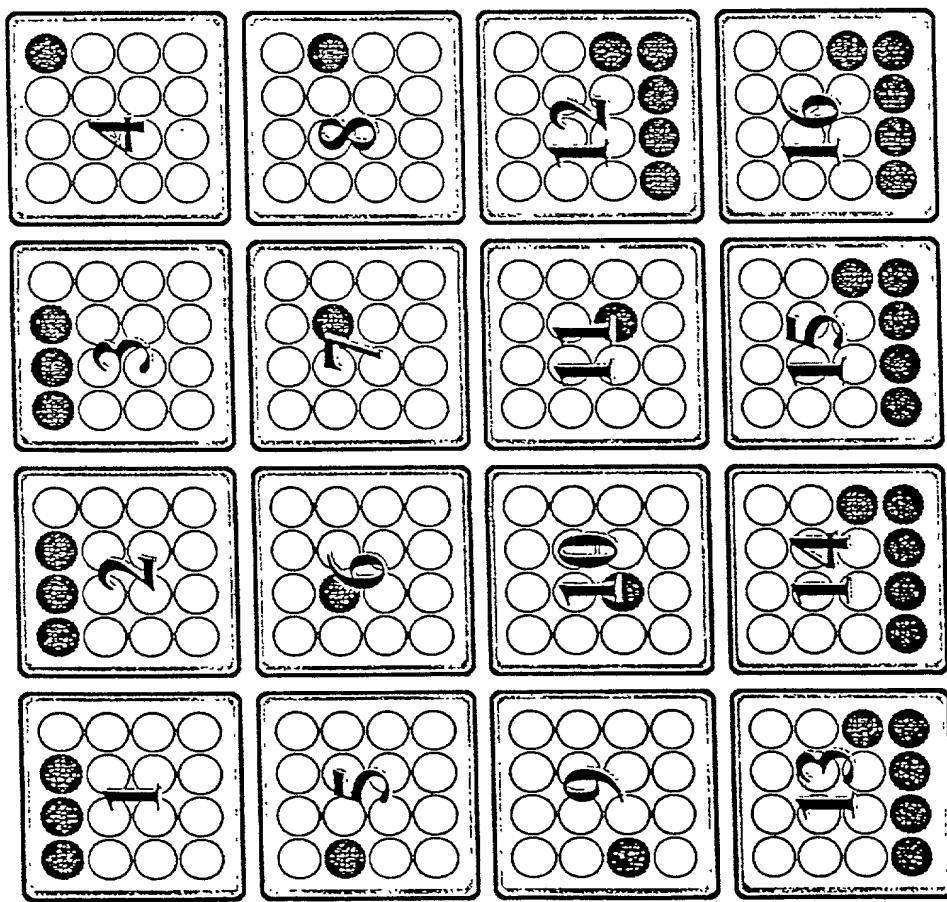


Fig 20a



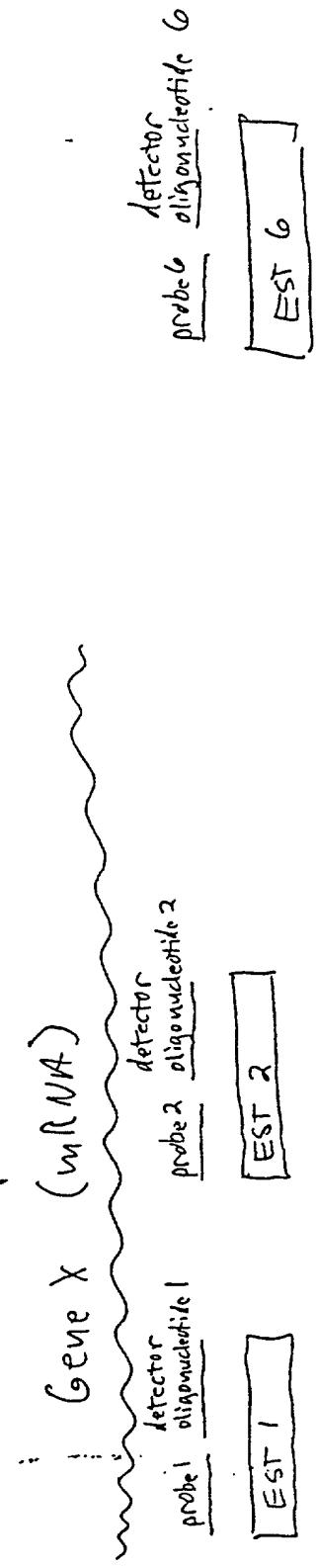


Fig 21

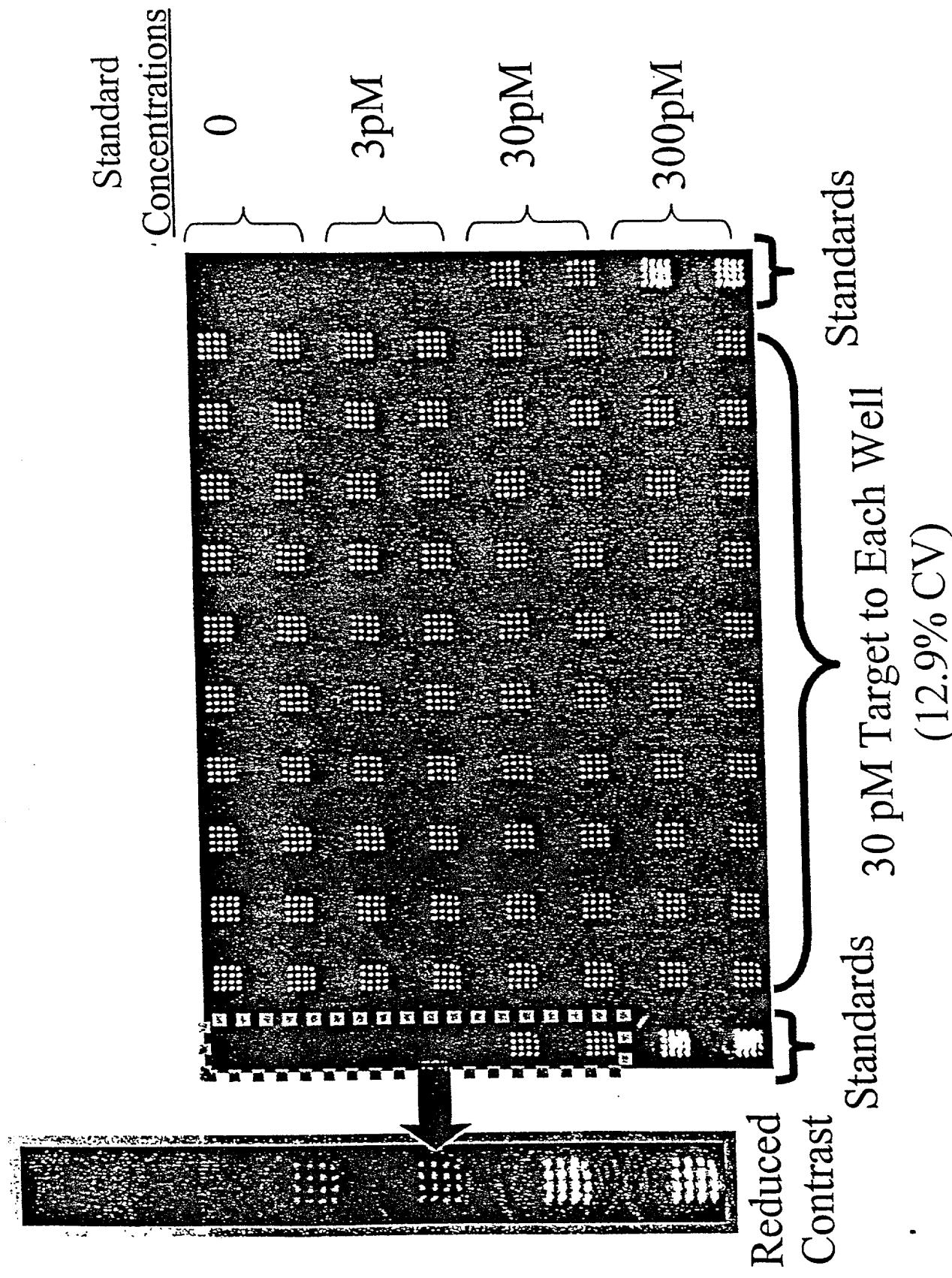


Fig 22

Fig. 23



## Complete Nucleic Digestion

mRNA  
Protection Fragment  
target specific control overhang

nuclease digestion

Cleaved → Protection Fragment

Hybridization To  
Detection Linker

Detection Linker → target-specific control overhang-specific moiety

Hybridization To  
Reporter Reagent

Signaling entity

Reporter Reagent

↓  
no signal

## Incomplete Nucleic Digestion

mRNA

Protection Fragment  
target specific control overhang

Protection fragment  
(including the control overhang)

nuclease digestion

Protection fragment

Protection fragment

Protection fragment

↓

NO SIGNAL

Fig. 24

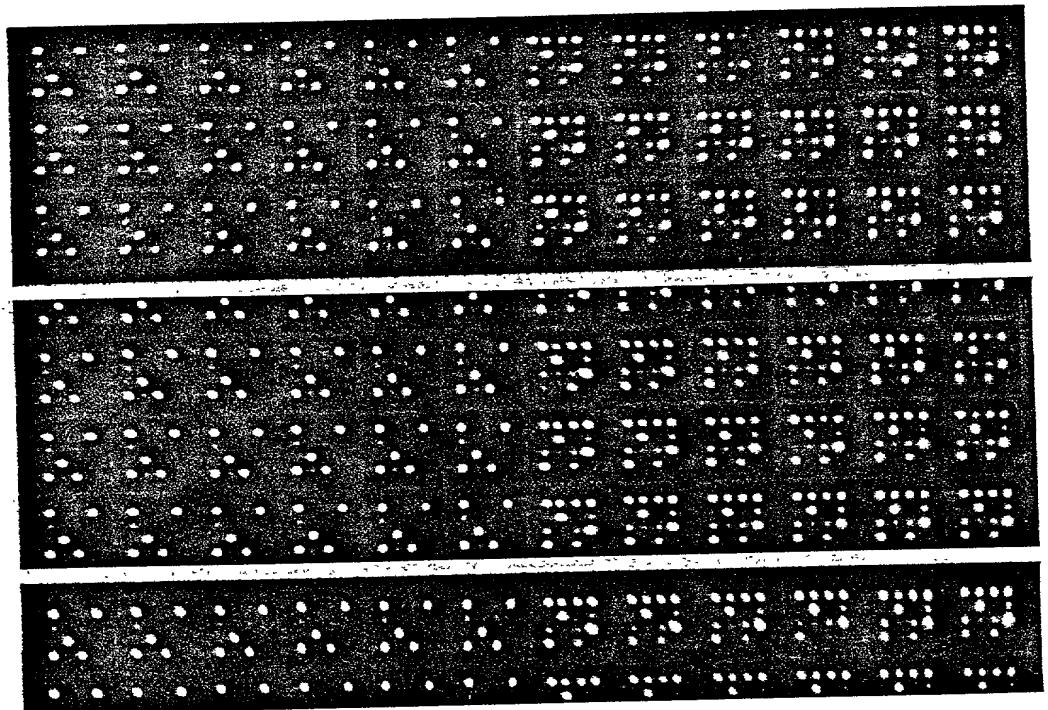


FIGURE 25

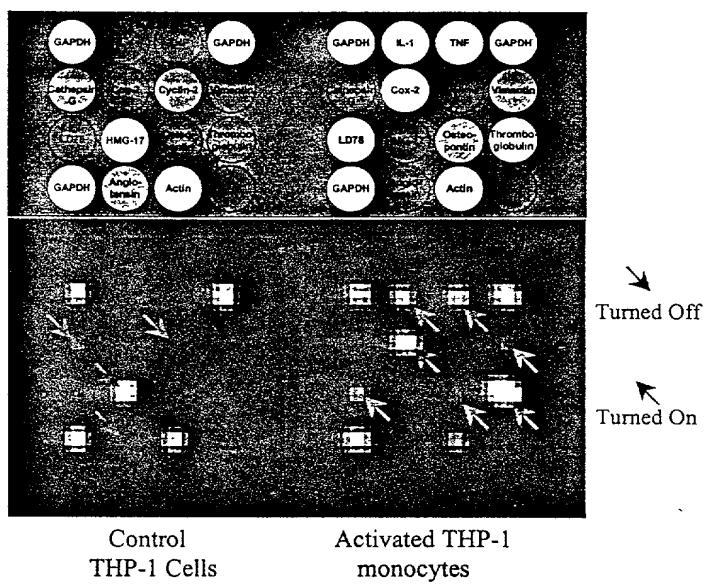


FIGURE 26